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AMSAT NEWS SERVICE
ANS-040

The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on http://www.amsat.org publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org.

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ANS-040 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 040.01
>From AMSAT HQ SILVER SPRING, MD.
DATE MMMM DDDD, YYYY
To All RADIO AMATEURS
BID: $ANS-040.01

Ham radio CubeSat deployment postponed

The deployment of amateur radio CubeSats from the International Space Station (ISS) planned for Thursday, February 6 has been postponed.

NASA say:

Flight Engineer Koichi Wakata KC5ZTA spent his morning working in the Japanese Kibo module to install a deployer mechanism that will be used in concert with the Kibo robotic arm to "launch" the first set of NanoRacks CubeSats. Wakata, who ran into some difficulty last week installing an electronics box that would help control the deployment of the mini-satellites, successfully installed that box after troubleshooting an alignment issue. The deployment of the first batch of CubeSats, which had originally been scheduled for this week before being postponed following last week's installation issue, has been postponed further to make sure that the CubeSats do not fall

into the intended orbit of the Global Precipitation Measurement satellite launching later this month. The exact date of the CubeSat deployment is still being evaluated.

[ANS thanks AMSAT-UK for the above information]

Ham Video Commissioning postponed

ESA postponed the Ham Video Commissioning to March 8.

Possible dates for the four Commissioning steps are March 8 (step 1), March 9 (step 2), and March 16 (step 3).
Step 3 could be turned into step 4.
These dates are all on the weekend.

With this agenda, we have just 1 week of blank transmissions.

The agenda is still to be finalized.

[ANS thanks Gaston ON4WF, via HamTV Bulletin #6 for the above information]

Satellites News from the Magazines

Steve Ford, WB8IMY, mentions Mineo Wakita's, JE9PEL, list of amateur satellite frequencies in February's QST. Check it out on page 52. Included are the links to the list on the web and to his Excel list.
Web Satlist: http://www.ne.jp/asahi/hamradio/je9pel/satslist.htm
Excel Satlist: http://www.ne.jp/asahi/hamradio/je9pel/satslist.xls

February issue of CQ is their QRP Edition. On pp. 54-59 see Mike Herr's article "Satellites and the QRPer...or Don't Worry About Sunspots".

The Department article "vhf plus", page 88, features a Teen led ISS contact, Victor CO6CBF/KF5YXV acquiring his US Technician license, FUncube, and Saying Hi to Juno

There are many other articles, that even though aren't specific to Amateur Satellites, should be of interest for portable operators.

Note that CQ's three sister magazines "Popular Communications", "CQ VHF", and "World Radio Online" have all merged into a digital supplement to the digital CQ to be called "CQ Plus". If you subscribe to one of these magazines your subscriptions will be transfered to CQ.

[ANS thanks QST and CQ for the above information]

Can Radio Hams receive NASA's ISSE-3/ICE ?

A post on the Planetary Society website wonders if radio amateurs will be able to pick up the signal from the ISSE-3/ICE spacecraft as

it passes Earth

Emily Lakdawalla says: The International Sun-Earth Explorer (ISEE-3), a spacecraft that was launched in 1978 to study Earth's magnetosphere and repurposed in 1983 to study two comets. Renamed the International Cometary Explorer (ICE), it has been in a heliocentric orbit since then, traveling just slightly faster than Earth. It's finally catching up to us from behind, and will return to Earth in August, 2014.

It's still functioning, broadcasting a carrier signal that the Deep Space Network successfully detected in 2008. Twelve of its 13 instruments were working when we last checked on its condition, sometime prior to 1999.

The 36 year-old satellite is still apparently operational but it appears that NASA can no longer send commands to it because the transmitters to do so were removed in 1999.

Emily sums up:
So ISEE-3 will pass by us, ready to talk with us, but in the 30 years since it departed Earth we've lost the ability to speak its language.
I wonder if ham radio operators will be able to pick up its carrier signal - it's meaningless, I guess, but it feels like an honorable thing to do, a kind of salute to the venerable ship as it passes by.

The satellite carries Redundant S-band transponders, each with 5 Watt RF output

Transponder A:
2090.66 MHz RHCP uplink, command or ranging
2270.40 MHz RHCP downlink, telemetry or ranging

Transponder B:
2041.95 MHz LHCP uplink, command
2217.50 MHz LHCP downlink, telemetry

Transmit antenna: medium gain with dual inputs for simultaneous right and left hand circular polarization downlink, 8 rows of 4 elements, 7 dBi, ±6° beamwidth, multibeam, electronically steerable, four lobe, omni directional coverage in azimuth

Receive antenna: 2042 MHz, intermediate gain, 1 row of 4 elements, 0 dBi, ±45° beamwidth

Read the Planetary Society post at
http://tinyurl.com/ANS040-emily-lakdawalla

ISSE-3/ICE Telecommunications Summary
http://mdkenny.customer.netspace.net.au/ISEE-3.pdf

[ANS thanks The Planetary Society via Southgate ARN for the above information]

Send Your Name to the Asteroid Bennu!

NASA is inviting people around the world to submit their names to be etched on a microchip aboard a spacecraft headed to the asteroid Bennu in 2016.

The "Messages to Bennu!" microchip will travel to the asteroid aboard the Origins Spectral Interpretation Resource Identification Security Regolith Explorer, or OSIRIS-REx, spacecraft. The robotic mission will spend more than two years at the asteroid, which has a width of approximately 1,760 feet (500 meters). The spacecraft will collect a sample of Bennu's surface and return it to Earth in a sample return capsule.

The deadline to submit names online is Sept. 30, 2014. Participants who submit their names to the "Messages to Bennu!" campaign will be able to print a certificate of appreciation to document their involvement.

For more information and to submit your name, visit http://planetary.org/bennu.

Participants who "follow" or "like" the mission on Facebook (https://www.facebook.com/OSIRISREx) will receive updates on the location of their names in space from launch time until the asteroid samples return to Earth in 2023. Facebook fans also will receive mission progress and late-breaking news through regular status updates.

For more information about the OSIRIS-REx mission, visit http://www.nasa.gov/osiris-rex and http://osiris-rex.lpl.arizona.edu.

Questions about this opportunity should be directed to tps(a)planetary.org.

[ANS thanks NASA Education Express Message -- Feb. 6, 2014 for the above information]

Outernet - Shortwave radio from space

Outernet is described as the modern version of shortwave radio broadcast from space

It is planned that the Outernet will consist of a constellation of hundreds of low-cost, CubeSats in Low Earth Orbit (LEO). Each satellite receives data streams from a network of ground stations and transmits that data in a continuous loop until new content is received.

In order to serve the widest possible global audience, the entire constellation utilizes UDP-based multicasting over WiFi. Although still not common, WiFi multicasting is a proven technology, especially when the data requires only one hop to reach the recipient.

Outernet claims to be able to bypass censorship, ensure privacy, and offer a universally-accessible information service at no cost to global citizens.
They say lack of an Internet connection should not prevent anyone from learning about current events, trending topics, and innovative ideas.

Although Outernet's near-term goal is to provide the entire world with broadcast data, the long-term vision includes the addition of two-way Internet access for everyone - for free.

The team hope to have the first test CubeSats launched in 2015.

http://tinyurl.com/ANS040-SpaceShortwave

Outernet
https://www.outernet.is/

[ANS thanks Southgate ARC for the above information]

FCC Seeks Comments on WR-2015 Draft Rcommendations

The FCC has invited comments by February 18 on the latest batch of draft recommendations of its Advisory Committee for World Radiocommunication Conference 2015 (WRC-2015).

At its January 27 meeting, the Advisory Committee (WAC) approved draft recommendations on a number of issues that will be considered by WRC-2015. Some items, including one which could possibly lead to changes to 60 meters in the long term, could affect the Amateur and Amateur-Satellite services.

Of interest to the Amateur Radio Satellite community, WRC-2015 will consider a number of issues that could impact amateur allocations above 420 MHz, including a possible extension of the current worldwide allocation to the Earth Exploration-Satellite service in the band 9300 to 9900 MHz by up to 600 MHz "within the frequency bands 8700 to 9300 MHz and/or 9900 to 10,500 MHz"

Incumbent services in the 9900 to 10,500 MHz range include the Radiolocation, Fixed, Mobile, Amateur, and Amateur-Satellite services.

The Amateur Service is secondary at 10,000 to 10,500 MHz worldwide, and the Amateur-Satellite Service is secondary at 10,450 to 10,500 MHz worldwide.

The FCC said comments provided by interested parties will assist it in its consultations with the US Department of State and NTIA in the development of US positions for WRC-2015. "The recommendations...may evolve in the course of interagency discussions as we approach WRC-15 and, therefore, do not constitute a final US Government position on any issue," the FCC Public Notice stressed.

Comments should reference IB Docket 04-286 and specific recommendations by WAC document number. Interested parties may file comments via the FCC's Electronic Comment Filing System (ECFS) at http://apps.fcc.gov/ecfs/ . The ARRL plans to file comments in this proceeding.

[ANS thanks Southgate ARN for the above information]

ARISS News

Successful ARISS Contacts

+ A Successful contact was made between Takatsuki Dai 1 Junior High School, Takatsuki, Osaka, Japan, and Astronaut Koichi Wakata KC5ZTA using callsign NA1SS. The contact began 2014-02-08 09:11:01 UTC and

lasted about nine and a half minutes. Contact was direct via 8N3T.
ARISS Mentor was 7M3TJZ.

The Dai 1 Junior High School Area Education Council is the
organization where many organizations, such as a school, a local
resident, etc. of the Dai 1 Junior High School Division, have
participated.
The Dai 1 Junior High Schoolarea education council is in the center
of Takatsuki city.
A secretariat is located in the Dai 1 Junior High School.
The 10th anniversary of foundation will be celebrated this
year.Their reason for a ARISS contact was to give their children a
dream as a commemorative event.

The Dai 1 Junior High School opened April 22, 1947. It is the oldest
Junior High School in the Takatsuki city and has a long history. Its
centrally located and is next to the old castle foundation. There are
now 404 students in attendance. They all study hard abd pursue sports
actively.

Upcoming ARISS Contact Schedule

Chuuou Elementary School, Toyoake, Japan, direct via 8N2TCES
Contact is a go for: Sun 2014-02-09 08:22:48 UTC

Escola Estadual "Gonçalves Dias" , Boa Vista, Brazil, direct via
PV8DX
Contact is a go for: Thu 2014-02-13 17:19:54 UTC

ITIS Giovanni Caramuel, Vigevano, Italy, telebridge via AH6NM
Contact is a go for: Sat 2014-02-15 10:11:54 UTC

[ANS thanks ARISS, Charlie AJ9N and David AA4KN for the above
information]

Satellite Shorts From All Over

+ Nh6Y Operating as W1AW/KH6 for one week starting on February 5.

DX Newsletter DXNL 1870 - February 5, 2014

KH6, Hawaii:
     Tom, NH6Y, is going to cover the satellite operations of
     W1AW/KH6 for one week starting on February 5.

[ANS thanks DX Newsletter for the above information]

+ DC Area Technician Class

The Montgomery Amateur Radio Club has scheduled a free amateur radio
Technician class for six Saturday mornings starting March 1st. These
will be held at Montgomery College, in Rockville, MD. The schedule
and location can be found via

       http://www.marcclub.org/mweb/exam_classes.html

We have a classroom, a schedule and instructors, but we need more
students at this time. Please spread the word to help us to get
students for this free class.

In addition, they have posted their scheduled public exam sessions.
The details are at

http://www.marcclub.org/mweb/exam_details.html

[ANS thanks David, W2LNX and AMSAT-DC for the above information]

+ Heavens-Above adds AO-73

Chris Peat, who runs Heavens-Above states that FUNcube-1 has been added to the list of Amateur Satellites.

http://www.heavens-above.com/AmateurSats.aspx

[ANS thanks David G4DPZ for the above information]

+ Video: Deploying CubeSats from the Space Station

http://tinyurl.com/ANS040-DeployCubes

[ANS Thanks AMSAT-UK for the above information]

+ FUNcube Fitter Messages

A text file which contains ALL the Fitter Messages that have been captured by groundstations can be downloaded using the link on the Fitter Messages page on the FUNcube Warehouse at:

http://warehouse.funcube.org.uk/fitter.html

The process to generate this file is executed once per day at midnight UTC.

The live page will show that Fitter Messages captured during the past 7 days.

+ AMSAT at ARRL Centennial July 17

AMSAT will offer a day long session on the basics of Amateur Satellites. The following is from the ARRL Centennial site.
https://www.regonline.com/builder/site/tab2.aspx?EventID=1248082

Amateur Satellites: The Basics - Barry Baines, WD4ASW
Since Amateurs heard the first transmissions of Sputnik and OSCAR-1, they have asked, "How can I do that?" This daylong session will provide best practices and helpful hints that will allow even the modest station to be used to communicate with the amateur "birds in space."

[ANS Thanks ARRL for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive addi-tional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership
at one-half the standard yearly rate. Post-secondary school students
enrolled in at least half time status shall be eligible for the stu-
dent rate for a maximum of 6 post-secondary years in this status.
Contact Martha at the AMSAT Office for additional student membership
information.

73,
This week's ANS Editor,
EMike McCardel, KC8YLD
kc8yld at amsat dot org